

## State of New Hampshire DEPARTMENT OF ENVIRONMENTAL SERVICES

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January 8, 2004 **Letter of Deficiency** DSP#04-001

City of Keene C/O Thomas Dutton 350 Marlboro Street Keene, NH 03431

RE: Ashuelot River Dam #126.01, Keene

Dear Mr. Dutton

The Department of Environmental Services, Dam Bureau (DES) consistently strives to enhance the safety of dams in New Hampshire through its dam safety program. One of the many instruments that play a part in reaching this goal is our inspection program. DES is forwarding this correspondence to you to advise you that in accordance with RSA 482:12 and Env-Wr 502.02, an inspection of the subject dam was conducted on October 1, 2003.

The following is a list of deficiencies that remain outstanding from the July 24, 2000 Letter of Deficiency. Enclosed is a copy for your reference.

Remove the brush from the upstream and downstream sides of the left abutment/gate section. This appeared to have not been conducted as of the inspection date;

- 2. Investigate the source of the seepage through the gate sluiceways and provide a plan to our office to significantly reduce or eliminate the seepage within a period of one year. This has not been conducted;
- The DES is requesting that all dam owners prepare and submit a written operation and maintenance plan (O&M). The plan should describe the control of impoundment levels, monitoring and maintenance procedures, and identify emergency contact personnel. This has not been conducted; and
- 4 Supply a schedule for the completion of the Emergency Action Plan (EAP). This has not been conducted and may not be necessary pending a further review of the hazard classification.

During this visual inspection and/or file review, the following deficiencies were observed

During the file review it was observed that an existing dike on the right side of the dam has not been inspected since a limited inspection was conducted as part of the Phase 1 inspection report. It has also been reported that the dike ranges from 1000 feet in length to 2000 feet in length and is believed to range from 4 feet to 9 feet tall;

here was brush growing along the left upstream and downstream gate sluiceways.

3 There was significant seepage through the downstream stonewall of the left and right gate sluiceways as indicated on the attached digital photos. This seepage was noted in the Army Corps of Engineers Phase I Inspection Report dated December 1980. The seepage has most likely

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contributed to the sinkholes observed in past inspections There were no sinkholes observed during this inspection;

- 3 There was no O&M plan on file with the DES; and
- 4 The EAP remains unfinished at this time. It should be noted that pending an inspection of the adjoining dike and reclassification an EAP may not be required.

DES believes that the above deficiencies can be corrected by performing the following items by the indicated schedule:

## October 1, 2004:

- 1. Remove the brush from the upstream and downstream sides of the left abutment/gate section
- 2. Investigate the source of seepage through the gate sluiceways and provide a plan to our office to significantly reduce or eliminate the seepage within a period of one year;
- 3 The DES is requesting that all dam owners prepare and submit a written O&M plan. The plan should describe the control of impoundment levels, monitoring and maintenance procedures, and identify emergency contact personnel; and
- Supply a schedule for the completion of the EAP, assuming that the dam will remain classified as a significant hazard dam "B". DES will conduct a followup inspection to assess the condition and downstream hazards associated with the dike during the 2004 inspection season.

DES is requesting that you complete and submit the attached "Intent to Complete Repairs" form, within 30 days of receipt of this letter, that will provide for correction of the identified deficiencies by the date(s) indicated above. Please call or write to our office if the repairs are completed ahead of the aforementioned schedule so that DES may schedule a follow-up inspection. Unless notified otherwise, DES will conduct the follow-up inspection on or after the date indicated above. If you believe changes to the items of work or completion date are necessary, please make the changes directly on the form and provide a brief explanation. Please call or write to our office if the repairs are completed before the aforementioned schedule. We have enclosed a self addressed stamped envelope for you to return this form.

Our intent in sending you this correspondence is to make you aware of items that DES believes warrant your attention to insure the continued safe operation of your dam. It is our hope that, through the submittal of the attached form and a commitment to keeping a well-maintained dam, you will voluntarily comply with the requested items of work. If we do not receive the intent form or a similarly adequate written reply, we will assume that you are in agreement with our findings and recommendations and DES will carry out follow-up inspections accordingly.

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If you have any questions or comments regarding this Letter of Deficiency or would like to be present at future inspections, please contact me at 271-3406, or write to the Water Division at 29 Hazen Drive, P.O. Box 95, Concord, NH 03302-0095.

Dale F. Guinn, P.E. Dam Safety Engineer

Attachments Guideline for an O&M plan, DB8, DB13, Closure of July 24, 2000 LOD, Copy of July 24, 2000 LOD cc: Gretchen Rule

Bethann McCarthy, P.E., EAP Coordinator
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